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TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-01-7367

Mr. Steven J. Faryan
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11th Floor
230 South Dearborn Street
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July 13, 1988

TAT-05-G2-00439

Re: Montgomery/Phillips Landfill Site Assessment
Montgomery, Illinois
TDD# 5-8802-06

Dear Mr. Faryan:

The Technical Assistance Team (TAT) was tasked on February 19, 1988, by the U.S. Environmental Protection Agency (U.S. EPA) to conduct a site assessment at the Montgomery/Phillips Landfill (MPL) site in Montgomery, Illinois (Figure 1). Sampling of on-site monitoring wells at the closed landfill and two adjacent private wells by the Illinois Environmental Protection Agency (IEPA) in 1981 revealed the presence of polychlorinated biphenyls (PCBs). Subsequently, in 1986, the U.S. EPA Remedial Response Branch (RRB) expressed concern over the presence of PCBs in private wells and requested the U.S. EPA Emergency Response Section assist in providing alternative drinking water supplies to the users of the above private wells. TAT action was prompted by this request. The following letter briefly describes the history of the site and presents TAT's findings pursuant to the aforementioned tasks.

The MPL site is located at the corner of Bypass Rt. 30 and Albright Road, in the City of Montgomery, Kane County, Illinois. The site, which covers 22 acres, is situated in a light industrial and residential area. MPL is bordered by private residences to the south and west, and trucking depots and businesses to the north and east.

Background information regarding the MPL site was obtained from a site inspection report dated August 26, 1986, submitted by the U.S. EPA Field Investigation Team (FIT). The MPL site, co-owned by Jim Phillips and David Thom, was operated by Mr. Thom from

Roy F. Weston, Inc.

SPELL PREVENTION & EMERGENCY RESPONSE DIVISION

In Association with ICF Technology Inc., C.C. Johnson & Associates, Inc., Resource Applications, Inc., Geo-Resource Consultants, Inc., and Environmental Toxicology International, Inc.

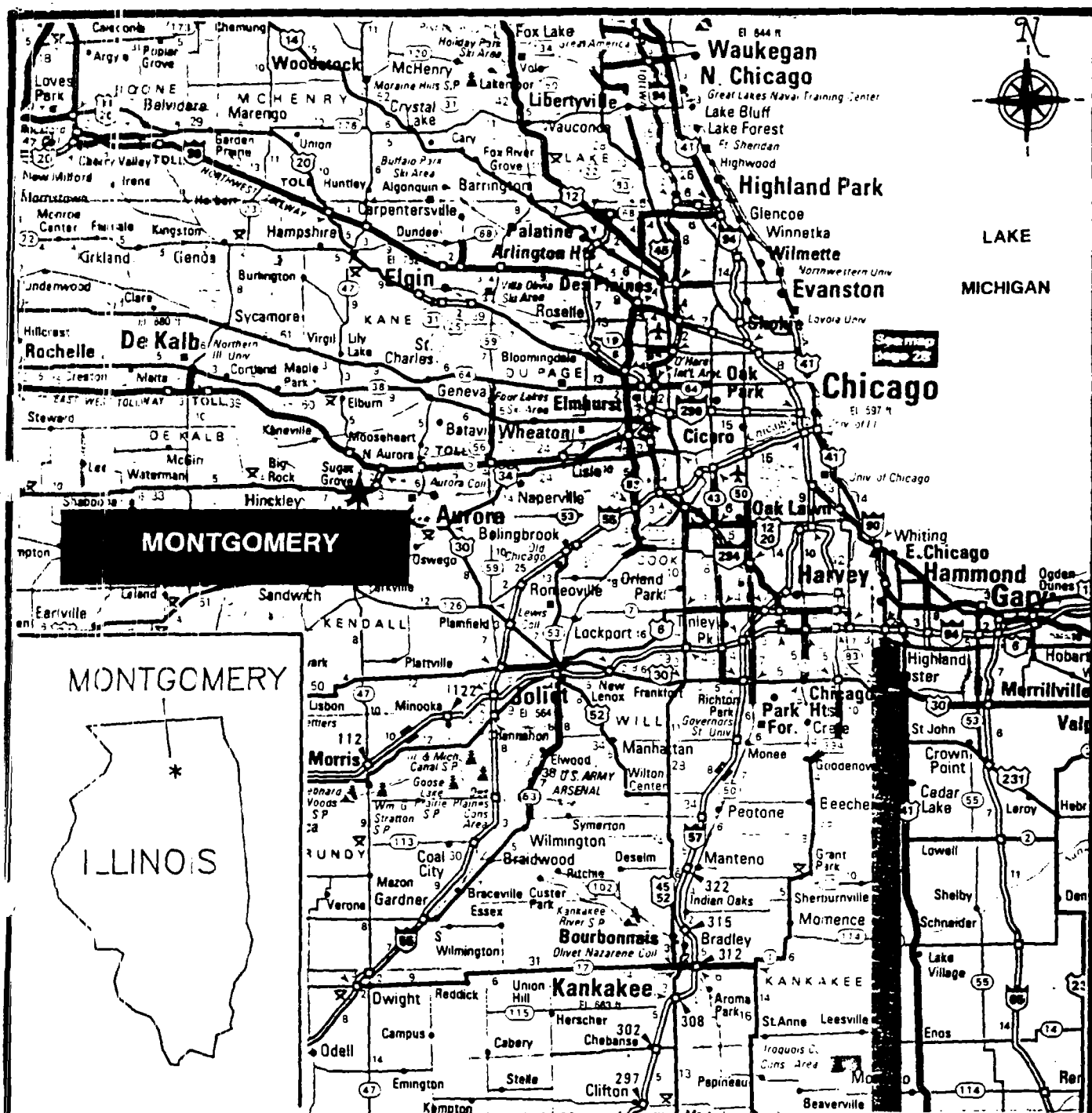


FIGURE 1

LOCATION MAP

MONTGOMERY PHILLIPS LANDFILL

MONTGOMERY, ILLINOIS

SCALE: 0 5 10 Miles
0 5 10 15 Kilometers

WESTON
MANAGERS DESIGNERS/CONSULTANTS

DRAWN BY

P.M.S.

DATE

6-9-88

PCS #

1422

APPROVED BY

J.B.

DATE

6-9-88

TDD #

5-8709-01

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1964 to 1976. The landfill was created by excavating gravel down to an insitu clay layer at a depth of 8 to 10 feet. During the period of operation, the landfill reportedly received only homogenous demolition wastes. The contractors responsible for this debris were identified as Armor Dial Corporation and Caterpillar Corporation. The volume of demolition debris landfilled was estimated at 188,170 cubic yards. In 1976, the landfill was closed down and capped with a 30-inch-thick clay layer.

In 1976, the IEPA installed seven monitoring wells within the MPL site, and an additional three wells on a subsequent date. FIT records indicate that the general ground water flow direction is north-northeasterly. The last sampling of wells at MPL was conducted by the IEPA in 1980. At that time PCBs were detected at concentrations of 25 parts per million (ppm) in on-site monitoring well samples, and 0.12 ppm in two private wells off site: Mr. Phillip's residential well, and D&N Trucking's well (Figure 2). On July 1, 1986, the U.S. EPA FIT conducted an inspection of MPL and also attempted to sample the on-site monitoring wells, but were unsuccessful because of obstructions in the wells. According to FIT records, Mr. Phillips had stated that the well pipes were obstructed deliberately by unidentified children in the neighborhood. The FIT conducted air monitoring at the site during the inspection. The Organic Vapor Analyzer (OVA) registered readings from 40 ppm to off-scale at the X100 setting at locations close to the heads of four monitoring wells marked E, H and X (see Figure 2).

The majority of the residents in the area depend on private wells for their drinking needs. The MPL landfill relies only on an insitu bottom clay liner to restrict vertical leachate migration and has no sidewall liner to limit horizontal migration. Therefore, the potential contaminant migration to ground water, thus the drinking water, poses a threat to the neighboring residents.

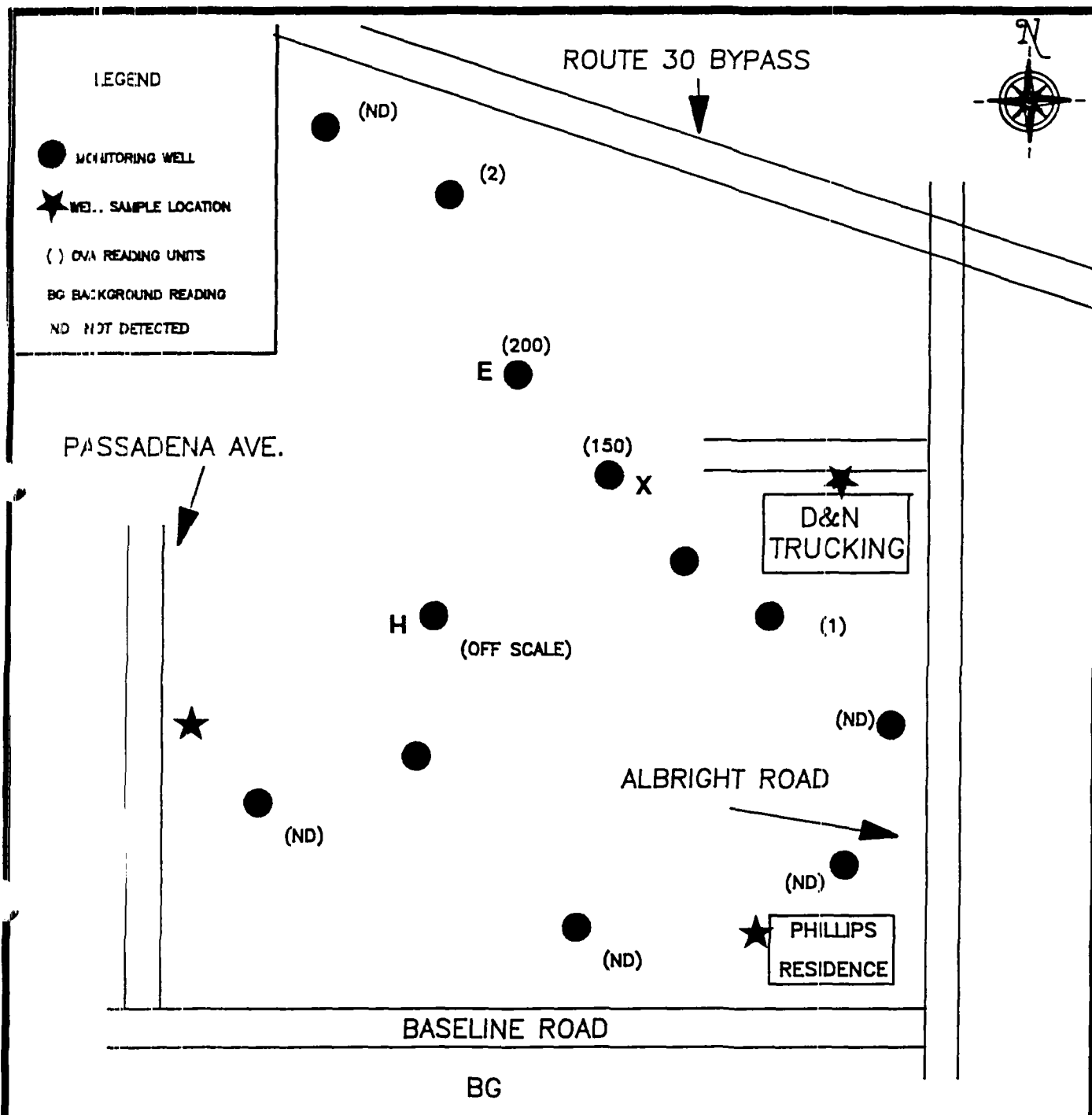


FIGURE 2
 SAMPLE LOCATIONS
 MONTGOMERY PHILLIPS LANDFILL
 MONTGOMERY, ILLINOIS
 NO SCALE



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On March 2, 1988, TAT members Jeff Binkley and S. Babusukumar, along with U.S. EPA On-Scene Coordinators (OSCs) Jackie Van Bosse and Nick Longo, performed an inspection of the MPL. Following a brief meeting with Mr. Phillips at his residence, the TAT conducted a site tour of the landfill and performed air-monitoring using an OVA. No readings above background levels were recorded in the ambient air in and around the landfill. However, elevated OVA readings were registered near the heads of three monitoring wells (Figure 2). Locations of monitoring wells on-site with the OVA readings registered through the TAT air monitoring are presented in Figure 2. OVA readings at well head H, were greater than 1,000 units, whereas those at wells E and X ranged from 100 to 200 units. According to Mr. Phillips the area encompassing the above three wells was landfilled most recently. The material landfilled in this part of the site was suspected to be sludge from the local municipal waste water treatment plant.

The TAT collected three well water samples from private wells along the periphery of the site. The wells sampled were: Phillips residence, N.W. corner of Albright Road and Baseline Road, D&N Trucking Company Well, and residential well at No. 10 Pasadena Street (see Figure 2). The first two wells were chosen to verify the presence of PCBs as documented by IEPA. The Phillips well and the D&N Trucking well represent wells from the upgradient and downgradient parts of the site with respect to ground water flow. The No. 10 Pasadena Street residence well was sampled to determine if the PCB contaminants (if present) were originating from other sources upgradient of the site. A blank and a duplicate sample were also collected. The samples were shipped to ATEC Associates Ltd., Inc., Indianapolis, Indiana, on March 2, 1988, for total metal, total cyanide and full-scan organic analysis (volatiles, acid base/neutral, pesticides, and PCB compounds) under Analytical Services TDD # 5-8803-L2.

Analytical results were received by the TAT on March 21, 1988, from ATEC Incorporated (Table 1). No organic compounds were detected in any of the samples. Among the metals only iron was

TABLE 1
ANALYTICAL RESULTS OF TAT WELL WATER SAMPLING*

MONTGOMERY PHILLIPS LANDFILL SITE
MONTGOMERY, ILLINOIS

MARCH 1988

(all concentrations in mg/l)

Parameter	Phillips Residence	D&N Trucking	D&N Trucking (Dup)	10 Pasadena Ave Residence	Blank
Cyanide (Total)	ND	ND	ND	ND	ND
Aluminum	ND	ND	ND	ND	ND
Antimony	ND	ND	ND	ND	ND
Arsenic	ND	ND	ND	ND	ND
Barium	ND	ND	ND	ND	ND
Beryllium	ND	ND	ND	ND	ND
Cadmium	ND	0.03	ND	ND	0.03
Calcium	127	1.5	15	162	0.22
Chromium	ND	ND	ND	ND	ND
Cobalt	ND	ND	ND	ND	ND
Copper	ND	ND	ND	ND	ND
Iron	7.7	ND	ND	3.7	ND
Lead					
Magnesium	82	5.4	5.6	99	5.6
Manganese	0.17	ND	ND	ND	ND
Mercury	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	ND	ND
Potassium	17	7	7	5	7
Selenium	ND	ND	ND	ND	ND
Silver	ND	ND	ND	ND	ND
Sodium	41	147	167	57	ND
Thallium	ND	ND	ND	ND	ND
Tin	ND	ND	ND	ND	ND
Vanadium	ND	ND	ND	ND	ND
Zinc	1.0	ND	ND	ND	ND

ND - NOT DETECTED

* - Samples analyzed by ATEC Associates Ltd., Inc., Indianapolis, IN

Note: Organic compounds (Volatiles, Acid/Base/Neutral, Pesticides, PCBs) were not detected in any of the samples.

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found to be in elevated concentrations with 7.7 mg/l in the Phillips residence well and 3.7 mg/l in the No. 10 Pasadena Street residence well as compared to secondary standards of the Safe Drinking Water Act (300 ug/l). The elevated iron concentration may have been introduced by water pipes within the residences or naturally occurring in the well water. Cadmium was detected at 0.03 mg/l in the D&N Trucking well, but was also present at the same concentration in the blank.

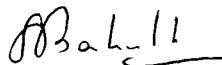
Based upon TAT sampling and analyses no PCB contamination was found in any of the private wells sampled of which included the wells sampled by IEPA in 1981. It is recommended that the Quality Assurance/Quality Control (QA/QC) data of IEPA sampling and analyses be obtained and reviewed.

The elevated levels of organic vapors near some of the monitoring wells may be the result of methane released from decomposition of sewage treatment plant sludge that was recently deposited in the landfill, as stated by the owner of the landfill. Samples from on-site monitoring wells will be necessary to evaluate the quality of the on-site ground water. Based on the TAT's limited assessment, there is no immediate threat posed by the site to human health and the environment, and therefore, no further TAT actions are recommended at this time.

Should you have any questions or need additional information, please feel free to contact us.

Very truly yours,

ROY F. WESTON, INC.



S. Babusukumar
Hydrogeologist



Scott D. Springer
Technical Assistance Team
Leader, Region V

SE/bh